

Kalama port drops methanol shoreline permit appeal

Associated Press

LONGVIEW, Wash. — The Port of Kalama is dropping its appeal of the state's shoreline permit for the Kalama methanol plant, removing a major challenge to the permit.

The Columbian reported the port had opposed the permit because officials worried it would require the port to reduce greenhouse gas emissions at its marine terminal, which would serve the methanol plant.

The port dropped the

appeal when it learned recently that the reduction requirements apply only to the plant, not its docks.

The permit still faces a challenge by Columbia Riverkeeper, Sierra Club and the Center for Biological Diversity. Their appeal argues the shoreline permits "fail to address threats to climate, safety and public health."

The same groups, represented by attorneys from Earthjustice, have also appealed the adequacy of the environmental impact statement of the project last October.

Oregon drivers warned to expect fire-caused delays

Associated Press

PORTLAND — The Oregon Department of Transportation warns drivers to expect wildfire-related delays when traveling between central Oregon and the Willamette Valley during the Labor Day weekend.

Fires are burning from Detroit Lake to Sisters, and the busy U.S. 20 corridor over Santiam Pass has been particularly active. Just west of the pass, ODOT has been

using a pilot car to direct two-way traffic because of firefighting efforts.

The delays are expected to continue through the weekend as temperatures rise and the fire danger increases. Motorists are urged to be careful driving through or parking near dry grass or brush. Hot exhaust pipes can start grass fires.

ODOT says motorists planning to travel over the Cascades should visit TripCheck.com before hitting the road.

Future of meat found in petri dish?

Produced with stem cell technology

By ALIYA HALL
EO Media Group

By the year 2021, a San Francisco company says some meat production will look different.

Very different.

Instead of animals being raised on ranches, meat will also be produced in laboratory petri dishes.

Variably called "clean" meat or "cultured" meat, it is produced using stem cell technology.

Memphis Meats in San Francisco and Cultured Beef in the Netherlands plan to compete with traditional meat for a spot in grocers' refrigerators.

"We're going to bring meat to the plate in a more sustainable, affordable and delicious way," said Dr. Uma Valeti, co-founder and CEO of Memphis Meats, in a press release. "Meat demand is growing rapidly around the world. We want the world to keep eating what it loves."

However, he said, "The way conventional meat is produced today creates challenges for the environment, animal welfare and human health."

In 2016, the Americans ate 25.6 billion pounds of beef, according to the National Cattlemen's Beef Association,



Maegan Murray

Instead of animals being raised on ranches, meat will also be produced in laboratory petri dishes.

whose members raise most of the nation's cattle.

The World Health Organization estimates that today 70 percent of arable land worldwide is used for livestock agriculture, and in 2050 meat consumption will be 70 percent higher than it currently is.

"That would mean that we don't have enough land on the planet to increase livestock volume to match that demand," Mark Post, a researcher at Cultured Beef, said on the company's website.

The process of producing cultured meat starts with removing specific muscle stem cells — undifferentiated cells that can turn into specialized cells — from a cow, a harmless procedure resembling a blood draw.

The stem cells then divide to give researchers trillions of cells from the original sample. After enough cells have grown, they are assembled in groups of 1.5 million cells to form small muscle tissue, similar to muscle fibers in steak.

From 10,000 of those fibers, a patty can be formed by adding salt, breadcrumbs and binder, according to Post. The process takes four to six weeks.

"We are currently focusing on hamburgers because

we rely on self-organization of the muscle cells to form muscle tissue or fibers," Post said. "That process results in small tissues that are large enough for minced meat applications, which accounts for 50 percent of the meat market."

Memphis Meats can now grow a pound of meat for less than \$2,400 — a steep drop from the \$18,000 it took to produce it in 2016. The company was co-founded in 2015 by Valeti and Nicholas Genovese, who is also the chief security officer.

\$10 per hamburger

Post expects the price to be about \$10 per hamburger once the production is at scale. As technology improves, however, it will come down further to a price that's competitive with beef, the company predicts.

Post joined Netherland research teams in 2007, after gaining funding from the Dutch government. Even though the grant expired in 2009, Post continues to work on cultured meat through the Cultured Beef company.

In 2016, the cattle industry was second among Oregon's agricultural commodities, bringing in \$701.2 million.

Nationally, the industry had sales of \$64.4 billion.

Post said surveys in European countries and the U.S. have shown that 20 to 50 percent of consumers are willing to try cultured meat, but Jerome Rosa, executive director of the Oregon Cattlemen's Association, hasn't seen any data to prove that traditional meat eaters will switch to cultured meat.

"I find it hard to believe; I think that's a real stretch," he said. "Consumers seem to be moving towards an anti-lab sentiment. All the concerns we hear about anti-GMOs, and with the continued increase of organic products out there, we see an increase in natural. To come out with a petri-dish product, it's something that seems to not be the direction of what consumers are wanting."

Food waste

Rosa is also concerned about the food waste issue if cultured meat were to gain momentum. Byproducts from food processing and even making beer are now fed to cattle.

"These (food waste) byproducts are fed to cattle. If there's not a demand for cattle feed out there, these products are going in the landfill," he said. "We're taking food waste products and turning them into first-class protein to feed people; that's a significant environmental benefit."

He used malts as an example. The microbrewery industry is a large business sector in Oregon, and the malt from the breweries goes to feed cattle.

Rosa also said that ranchers are able to "make food and protein to feed the world on land that is unusable for other food production."

"Fundamentally the discussion has led to: We really believe that meat comes from an animal raised by a farmer or rancher — there's no substitute for that," he said.

FIVE-DAY FORECAST FOR ASTORIA

Tonight	Saturday	Sunday	Monday	Tuesday
55	80 / 56	78 / 59	84 / 61	89 / 59
Clear	Sunny and warm; breezy in the afternoon	Mostly sunny, nice and warm	Mostly sunny and very warm	Partly sunny; record-breaking temperatures

AccuWeather.com

ALMANAC

Astoria through Thursday.

Temperatures

High/low 70°/53°
 Normal high/low 69°/52°
 Record high 88° in 1942
 Record low 43° in 1973

Precipitation

Thursday 0.00"
 Month to date 0.39"
 Normal month to date 1.16"
 Year to date 50.06"
 Normal year to date 38.10"

SUN AND MOON

Sunset tonight 7:54 p.m.
 Sunrise Saturday 6:37 a.m.
 Moonrise today 5:19 p.m.
 Moonset today 1:58 a.m.

REGIONAL WEATHER

Shown is tomorrow's weather. Temperatures are tonight's lows and tomorrow's highs.

UNDER THE SKY

Tonight's Sky: Vega, the brightest star of Lyra, the harp, stands almost directly overhead around 9:30 p.m.

Source: Jim Todd, OMSI

REGIONAL CITIES

City	Today	Hi	Lo	W	Hi	Sat.	Lo	W
Baker City	93	46	s	99	49	s		
Bend	95	56	pc	100	60	pc		
Brookings	78	61	pc	75	60	pc		
Eugene	90	55	s	97	59	pc		
Ilwaco	72	58	s	74	60	s		
Klamath Falls	93	53	pc	97	54	pc		
Medford	102	63	pc	106	67	pc		
Newberg	92	58	s	99	61	s		
Newport	69	51	s	72	54	pc		
North Bend	73	54	s	75	55	pc		
Olympia	84	51	s	90	54	s		
Pendleton	94	59	s	100	65	s		
Portland	90	61	s	97	64	s		
Roseburg	98	61	pc	106	65	pc		
Salem	93	58	s	99	63	pc		
Seaside	76	57	s	79	58	s		
Spokane	87	59	s	94	62	s		
Springfield	93	55	s	99	60	pc		
Vancouver	90	59	s	96	62	s		
Yakima	94	54	pc	99	60	pc		

TOMORROW'S TIDES

Time	High	Time	Low
12:13 p.m.	6.7 ft.	5:46 a.m.	0.2 ft.
11:32 p.m.	7.6 ft.	5:41 p.m.	2.4 ft.

NATIONAL CITIES

City	Today	Hi	Lo	W	Hi	Sat.	Lo	W
Atlanta	83	65	l	84	65	pc		
Boston	70	51	s	70	56	pc		
Chicago	71	53	s	76	59	s		
Denver	87	58	pc	89	61	s		
Des Moines	77	58	s	82	62	s		
Detroit	67	55	pc	69	57	pc		
El Paso	92	67	s	91	68	s		
Fairbanks	59	42	sh	59	38	pc		
Honolulu	86	71	pc	85	73	pc		
Indianapolis	68	56	c	73	57	pc		
Kansas City	78	62	s	81	64	s		
Las Vegas	105	83	pc	103	80	s		
Los Angeles	102	78	s	98	76	pc		
Memphis	79	64	c	81	63	pc		
Miami	90	79	l	89	78	sh		
Nashville	70	58	r	77	56	c		
New Orleans	86	73	l	87	73	pc		
New York	69	56	pc	68	62	r		
Oklahoma City	85	66	pc	86	66	s		
Philadelphia	73	57	pc	66	62	r		
St. Louis	76	52	s	79	64	s		
Salt Lake City	91	66	s	94	68	s		
San Francisco	95	70	s	91	67	s		
Seattle	80	60	s	86	62	s		
Washington, DC	72	61	c	68	66	r		

Local offices close for Labor Day

The Daily Astorian

In observance of Labor Day on Monday, all federal, state, county and city offices and services, including Astoria, Warrenton, Gearhart, Seaside and Cannon Beach city halls, are closed. All U.S. post offices are closed, and there is no mail delivery.

Astoria, Jewell, Knappa, Warrenton/Hammond, Seaside (including Cannon Beach and Gearhart schools) and Ocean Beach School District schools and Clatsop Community College are closed.

The Astoria Library, Seaside Library, Warrenton Library and all Timberland libraries in Washington state,

including Ilwaco, Ocean Park and Naselle, are closed.

The Port of Astoria offices and services are closed.

Garbage collection through Recology Western Oregon (covering Astoria, Seaside, Gearhart and Cannon Beach), city of Warrenton garbage collection, and Peninsula Sanitation (covering the Long Beach, Washington, Peninsula) are not affected by the holiday. Recology Western Oregon's transfer station and Peninsula Sanitation's transfer station are open.

The Sunset Pool in Seaside is open from 5:45 a.m. to 1 p.m. The Astoria Aquatic Center is open from 5 a.m. to 4 p.m., then is closed until

Sept. 17 for maintenance.

The Clatsop County Heritage Museum, Oregon Film Museum and Flavel House are open from 10 a.m. to 5 p.m., and the Carriage House is open from 9:30 a.m. to 5 p.m. The Uppertown Firefighters' Museum is closed. Capt. Gray's Port of Play and Lil' Sprouts are closed through Monday. Fort Clatsop is open from 9 a.m. to 6 p.m. The Columbia River Maritime Museum is open from 9:30 a.m. to 5 p.m. The Seaside Museum is closed.

Sunset Empire Transportation ("The Bus") is running.

The Daily Astorian offices are closed, but the newspaper printed and delivered as usual.

DEATH

Aug. 30, 2017

REED, Ancil Jean, 93, of Warrenton, died in Seaside. Hughes-Ransom Mortuary & Crematory in Astoria/Seaside is in charge of the arrangements.

LOTTERIES

OREGON

Thursday's Pick 4:

1 p.m.: 6628
 4 p.m.: 4047
 7 p.m.: 3757
 10 p.m.: 8843

Thursday's Lucky Lines: 04-05-10-16-17-23-28-30
 Estimated jackpot: \$49,000

WASHINGTON

Thursday's Daily Game: 0-7-1
Thursday's Keno: 14-20-24-30-32-39-40-43-51-53-54-61-66-67-68-71-72-74-77-80
Thursday's Match 4: 06-08-17-20

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The Daily Astorian publishes paid obituaries. The obituary can include a small photo and, for veterans, a flag symbol at no charge. The deadline for all obituaries is 9 a.m. the business day prior.

Obituaries may be edited for spelling, proper punctuation and style. Death notices and upcoming services will be published at no charge. Notices must be submitted by 9 a.m. the day of publication.

Obituaries and notices may be submitted online at www.dailyastorian.com/forms/obits, by email at ewilson@dailyastorian.com, placed via the funeral home or in person at The Daily Astorian office, 949 Exchange St. in Astoria. For more information, call 503-325-3211, ext. 257.

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